Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte TERREL L. MORRIS

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Appeal No. 2003-2021
Application No. 09/753,703

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ON BRIEF

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Before Warren, Waltz, and Kratz, *Administrative Patent Judges*.

Waltz, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the primary examiner's final rejection of claims 5 through 8, which are the only claims remaining in this application. We have jurisdiction under 35 U.S.C. § 134.

According to appellant, the invention is directed to a method of containing electromagnetic radiation by filling a gap between a heat sink mounted on an integrated circuit and a printed circuit board with a material that absorbs

electromagnetic radiation and is not ohmically conductive (Brief, page 2). Independent claim 5 is illustrative of the invention and is reproduced below:

5. A method of containing electromagnetic radiation, comprising:
filling a gap between a heat sink mounted on an integrated circuit package and a printed circuit board with a material that absorbs electromagnetic radiation, and wherein said material is not ohmically conductive.

The claims on appeal stand rejected under 35 U.S.C. § 102(b) as anticipated by Akram et al. (Akram), U.S. Patent No. 5,866,953, issued on Feb. 2, 1999 (Answer, page 4). We *reverse* the examiner's rejection on appeal essentially for the reasons stated in the Brief, Reply Brief, and those reasons set forth below.

OPINION

The examiner finds that, with regard to claim 5 on appeal, Akram discloses in figure 4 filling a gap between a heat sink (428) mounted on an integrated circuit package (402) and a printed circuit board (416) with a material (424) that absorbs electromagnetic radiation, and where the material is not ohmically conductive (Answer, page 4). The examiner further finds that Akram discloses urethane as a barrier glob top material (424) and appellant discloses that urethane has the property of absorbing electromagnetic radiation (Answer, page 6, citing the specification, page 9, ll. 1-4). The examiner finds

that the "lossy urethane" materials taught by appellant's specification are the same as "known dielectric urethane ... materials" encompassed by the claim limitation "a material that absorbs electromagnetic radiation" (Answer, page 5, citing a dictionary definition of "lossy"). Accordingly, the examiner concludes that Akram describes every limitation of claim 5 on appeal (Answer, page 9).

The examiner and appellant agree that Akram fails to disclose or suggest that barrier glob top materials absorb electromagnetic radiation (Brief, page 5; Answer, page 6, last two lines). It is also not contested that Akram discloses that a barrier glob top material is selected to provide "low moisture permeability, low thermal coefficient of expansion, good adhesion and sealing properties. Preferred barrier glob top materials include epoxy, polyamide, urethane [sic ","] silicone, acrylic or the like." Akram, col. 4, ll. 2-6 (Brief, page 4; Answer, page 6). Finally, both appellant and the examiner agree that appellant's specification discloses that examples of lossy materials suitable to absorb electromagnetic radiation include "materials such as lossy foam materials, lossy urethane sheet materials, and lossy multi-layer materials that enable the core of the material to act primarily as a low-resistance element, while the outside of the material presents a good insulator."

Specification, page 9, ll. 1-4 (Brief, page 6; Answer, page 5; Reply Brief, page 2). Accordingly, the dispositive issues are the examiner's claim interpretation of "a material that absorbs electromagnetic radiation" and the examiner's finding that the barrier glob top materials disclosed by Akram absorb electromagnetic radiation.

The language of the claims must be given its broadest reasonable interpretation in light of the specification as it would have been understood by one of ordinary skill in the art. *See In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). The claimed language "a material that absorbs electromagnetic radiation" is defined in the specification as synonymous with a "lossy" material, i.e., a material that presents a lossy interface to high-frequency electromagnetic currents (specification, page 3, ll. 3-10; see also page 5, ll. 2-4).[1] Suitable examples of "lossy" materials are taught on pages 8-9 of the specification. Accordingly, we determine that the scope of the claimed "material that absorbs electromagnetic

[1]The examiner has failed to show why resort to a dictionary definition is needed to ascertain the scope of "lossy" or why "dielectric" is synonymous with "lossy" as this word is used in appellant's specification. *See Anderson v. Int'l Eng'g & Mfg., Inc.*, 160 F.3d 1345, 1348-49, 48 USPQ2d 1631, 1634 (Fed. Cir. 1998)("[D]ictionary definitions of ordinary words are rarely dispositive of their meanings in a technological context. A word describing patented technology takes its definition from the context in which it was used by the inventor.").

radiation" includes at least the materials listed on pages 8-9 of the specification.

We determine that the examiner has not met the initial burden of establishing a *prima facie* case of anticipation, i.e., the examiner has not established by convincing reasoning or evidence that the barrier glob top material disclosed by Akram is "a material that absorbs electromagnetic radiation" within the scope of claim 5 on appeal. *See In re Oetiker,* 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Contrary to the examiner's finding on page 6 of the Answer, urethane is <u>not</u> disclosed by appellant as having the property of absorbing electromagnetic radiation. Appellant teaches that "*lossy* urethane sheet materials" are suitable materials for absorbing electromagnetic radiation (specification, page 9, ll. 1-2, italics added). As correctly argued by appellants (Brief, page 4; Reply Brief, page 2), a "lossy" material is synonymous with a material that absorbs electromagnetic radiation, indicating that lossy urethane is urethane modified to enable the core to act primarily as a low-resistance element, while the outside of the material acts as a good insulator (specification, page 9, ll. 2-4). The examiner has not provided any basis in fact or technical reasoning to reasonably support the determination that the urethane of Akram would *necessarily* be a material that absorbs

electromagnetic radiation. *See In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

For the foregoing reasons and those stated in the Brief and Reply Brief, we determine that the examiner has not established a *prima facie* case of anticipation in view of Akram. Accordingly, we cannot sustain the rejection on appeal. The decision of the examiner is reversed.

REVERSED

Charles F. Warren Administrative Patent Judge	)	
Thomas A. Waltz Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
Peter F. Kratz Administrative Patent Judge	)	

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